

DEQ Wind Energy Regulatory Advisory Panel (Wind RAP)

January 7, 2010 Meeting

Final Meeting Notes

Location: DEQ Piedmont Regional Office
Glen Allen, VA 23060

Start: 9:35 a.m.

End: 4:15 p.m.

RAP Leader/Facilitator: Carol Wampler, DEQ

Recorder: Debra Miller, DEQ

RAP Members Present:

Julie Langan, DHR
Bob Bisha, Dominion
Ray Fernald, DGIF
James Golden, DEQ
Nikki Rovner, Deputy SNR
Judy Dunscomb, TNC
Ronald Jenkins, DOF
Larry Jackson, Appalachian Power
Tom Smith, DCR

Ken Jurman, DMME
Theo deWolff, Independent Developer
Mary Elfner, Audubon
Dan Holmes, Piedmont Environmental Council
Stephen Versen, VDACS
Tony Watkinson, VMRC
Larry Land, Virginia Assoc. of Counties
John Daniel, Troutman Sanders

RAP Members Absent:

Jonathan Miles, JMU

Jayme Hill, Sierra Club-VA Chapter

Public Attendees:

Roger Kirchen, DHR (alternate)
Emil Avram, Dominion (alternate)
Rick Reynolds, DGIF (alternate)
David Phemister, TNC (alternate)
John Davy, DCR (alternate)
Laura Rose (ODEC)

Caroline Clark, Williamsburg Environmental
Larry Nichols, VDACS (alternate)
Don Giecek, Invenergy (alternate)
Hank Seltzer, BP Wind Energy
Emil Avram, Dominion (alternate)
Elizabeth Murphy, VMRC (alternate)

Agenda Item: Welcome & Introductions

Discussion Leader: Carol Wampler

Discussion: The RAP meeting attendees and public attendees were welcomed. Carol updated attendees on how the current draft discussion document was developed. She summarized the process that has resulted in the discussion draft for the Wind Energy Permit-by-Rule regulation, which is the subject of this final RAP meeting. This latest version has been revised to reflect recent discussions and the RAP meeting of January 5, 2010. During today's meeting, the RAP will be reviewing Sections 6 through 11 and then returning to issues noted during the January 5th meeting regarding Sections 1 thru 5. It was clarified that if the RAP members have any objections, they need to voice them during the discussion when that particular section is being reviewed; otherwise, no objections will be noted, and it will be deemed that the RAP agrees to the presented language by consensus. The RAP was reminded that this means that the language is something that you can live with and will not oppose.

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Agenda Item: Discussion Draft Section 6 - Site plan and context map requirements

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP reviewed the language of Section 6. A question on the interval for the maps was asked, and it was noted that this will be left to the applicant. The requirement is that the requested information is shown and can be understood. No change to the language was necessary.

CONCLUSION: The RAP agreed to the language of Section 6.

Agenda Item: Discussion Draft Section 7 - Facility design standards

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP reviewed the language of Section 7. Carol provided the background on the changes and why this section is minimal. The main reason is that DEQ does not have any authority regarding how these wind energy projects are engineered beyond the impacts to the mitigation plan. Therefore, to ensure this was clearly understood, Section 7 relates only to aspects of the wind facility's design that affect mitigation measures for wildlife and historic resources. After the explanation, there were no comments or concerns noted and no further discussion.

CONCLUSION: The RAP agreed to the language provided for Section 7.

Agenda Item: Discussion Draft Section 8 - Public participation

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP reviewed the language of Section 8. This language was presented with explanation that the additional language requiring a submittal of an "executive summary" of the public notice to the DEQ stemmed from a request by DOD. The RAP had no issues with this sentence addition. The RAP discussed the submittal of an approximation for the number of turbines. Developers noted that this is a multi-year process and that some flexibility is necessary. The RAP did discuss the public meeting timing and the comment period, and that process was further explained for clarification. Based on the questions, there were no recommended language revisions.

CONCLUSION: The RAP agreed to the language of Section 8.

Agenda Item: Discussion Draft Section 9 - Change of ownership, facility modifications, termination

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP reviewed the language of Section 9. Section 9 was presented with explanation of why the PBR termination language of subsection C was necessary. There were many concerns noted regarding how and when the agency could seek termination. Industry representatives were concerned about impacts this could have on power supply. It was clarified to the RAP that similar language is a necessary authority of the Director for permitted activities and would only be sought as a measure of last resort. A recommendation was made to remove "closure" from the termination section. The RAP agreed to this concept but a few RAP members did request that this be reviewed by DEQ's Enforcement Director.

CONCLUSION: Based on no further comments, the language of Section 9.A and 9.B was agreed to by the RAP with Section 9.C remaining as drafted (minus "closure") for the proposal.

Agenda Item: Discussion Draft Section 10 - Permit fee requirements

Discussion Leaders: Carol Wampler, DEQ

Discussion: The RAP reviewed the language of Section 10. Carol explained how the fees provided were calculated. An environmental representative asked if the fee should cover the considerable staff time that staff from agencies other than DEQ will be required to spend on these projects. It was noted by the Developers that adding additional costs beyond the statutory requirements continues to add a burden for

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these very marginally profitable projects and it would be requiring developers to contribute to work beyond the permitting costs. No further comments or concerns were noted.

CONCLUSION: Based on no further comments beyond the cost to other agencies, the RAP agreed to allow DEQ to review the costs associated with this permit program and reflect those in the calculation of fees.

Agenda Item: Discussion Draft Section 11 - Enforcement

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP reviewed the language of Section 11. Carol explained that these provisions reference the authorities presented in the statute and then flesh out these requirements with language taken from other DEQ regulations. There were no comments or questions.

CONCLUSION: The RAP agreed to the language provided for Section 11.

Agenda Item: Discussion on Coastal Avian Resources (Section 3.A)

Discussion Leader: Carol Wampler, DEQ

Discussion: Carol provided the RAP with background on the decision not to bifurcate the regulation into a land-based and offshore action. The regulation will be drafted to apply to both situations, and the language restricting to land-based will not appear in the regulation. This will provide the best situation for DEQ to meet the statutory deadline for this regulation's promulgation. By March 2010, VMRC will have submitted to the General Assembly a report on leases for offshore wind development, and after that a group can be brought together by DEQ to review the regulation and determine what, if any, revisions or additions are necessary for coastal and offshore impacts.

Comments noted:

- Audubon requested that they remain involved with these discussions regarding offshore avian impacts.
- It was noted that it would be very unlikely that any offshore project would not have an avian analysis; however, there was concern regarding what type of analysis and field survey requirements would be necessary for offshore projects.
- The scientific studies do not point to one methodology, so at this point it is best to be general regarding the requirements and wait for the VMRC study to refine, if necessary.
- VMRC reiterated that they were comfortable that offshore bottom-use permits will also include avian resources for suitability but the weight of consideration for that resource may be different.
- VMRC permit process may not cover all that is needed for avian resource impacts; there is concern with bird species of global and continental significance.
- There may be additional resource considerations for offshore regarding marine wildlife. VMRC's permit provisions may address these.
- TNC representatives noted that a mapping exercise alone is not the only tool necessary for determining impacts in the coastal zone or offshore. There may be a gap for impacts to avian species of global and continental significance.
- The current study by Bryan Watts deals with more than migration. It includes avian use corridors. Some of these components can be mapped, such as high value feeding areas and high value breeding areas.

DEQ will remove the words "land-based" from the regulation to make it applicable to both land-based and offshore wind projects. After March, DEQ will review the VMRC study and obtain scientific input regarding avian impacts along the coastal migratory and use corridors.

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The RAP was asked if this is something that we can or should move forward with regarding coastal avian resources. Some RAP members indicated that yes, there was a need for more information to determine how to best address this resource in Section 3.A. The RAP was asked to give DEQ permission to put mapping into the proposal but also to obtain further information from scientific resources on the additional requirements for field surveys in order to protect avian species of global and continental significance. It was also noted that the regulation is proposed only, and that there will be a public comment process prior to finalization.

During the discussion, it was noted that this issue is further complicated as there is little information currently available on data collection methodologies (tweaks to the mapping exercise would be necessary or what would be needed in a study?). There is no generally accepted answer to guide a project through the process regarding coastal avian resources. If something is found, then what is done (research, study, assessment?) and how is that done (process?)?

The RAP agreed that there needed to be some analysis for coastal avian resource evaluation. However, there was no agreement on what this should entail. Based on these discussions, two options were proposed to the RAP. Option 1 was to include a coastal avian desktop mapping analysis only. Option 2 was to include the desktop analysis plus add language for unspecified field related survey activities. Two RAP members (independent developers) voted for Option 1. Eleven Rap members voted for Option 2 including the environmental advocacy groups and other SNR agency representatives. Carol noted that there were deep reservations over adding provisions which had not had full scrutiny by the RAP.

CONCLUSION: No consensus on how to incorporate the coastal avian resource. The RAP requested that the DEQ develop language for both the desktop analysis and field study for coastal avian resources (with assistance from CZM staff). This language will be circulated to academic experts, DGIF, TNC, and industry representatives for further feedback before the proposed regulation is presented to the DEQ director.

Agenda Item: Discussion on Permit Review Timeframe (Section 2.B)

Discussion Leader: Carol Wampler, DEQ

Discussion: Carol provided the RAP with the rationale for completeness and adequacy reviews of the PBR application. The completeness stage will determine if there are significant adverse impacts and if all of the PBR application items have been submitted as required. During adequacy, there will be consultation with the other SNR agencies and a determination if the PBR (and any necessary mitigation plan) adequately meet the regulatory requirements. The RAP reviewed the language of Section 2.B.

The RAP was asked if there were any objections to the 60 day timeframe for the completeness review. Industry and developers noted that the statute speaks to promptness for the review and was to provide programmatic incentive for wind development; therefore, having a 60 and a 90 day review seems lengthy. Prefer a 30 day completeness review but can live with 45 days if the adequacy review is then shortened as well. The primary issue for determination during this first completeness review is whether a mitigation plan for historic resources should be required. DHR stated that review for significant adverse impacts cannot be accomplished in 30 days, and DHR noted that 45 days may not allow enough time for this HR review either. The RAP was asked to provide recommended timeframes.

A proposal that all of the reviews, completeness and adequacy, be combined and accomplished in 90 days was presented. There was some concern that this would not allow the agencies enough time to do all that

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is required. However, the agency representatives from DHR and DGIF noted that this should be sufficient time. There was no further discussion.

CONCLUSION: The RAP agreed that DEQ will revise this section to accomplish the review for both completeness and adequacy within 90 days.

**Agenda Item: Discussion on Historic Resources and Other
Natural Resources (Section 3.B and 3.C)**

Discussion Leaders: Carol Wampler, DEQ

Discussion: The RAP reviewed the language of Section 3.B. There were not additional concerns or comments noted, and the RAP agreed to the language of this section. The RAP reviewed the language of Section 3.C. There were not additional concerns or comments noted, and the RAP agreed to the language of this section.

CONCLUSION: The RAP agreed to the language for section 3.B or 3.C.

Agenda Item: Discussion on Definitions (Section 1.B)

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP reviewed the updated definitions. There were no comments or objections noted for the revised definitions provided for inter-connection point, wind energy facility, phase, and site.

CONCLUSION: The RAP agreed to the definitions provided in Section 1.B.

RAP broke for lunch at 12:35pm

RAP reconvened at 1:38 pm.

Agenda Item: Discussion of Species of Greatest Conservation Need (SGCN) (Section 3.A, Section 4, and Section 5)

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP was presented with a summary of the topics and results of a meeting on January 6 between DEQ and DGIF regarding SGCN inclusion within this regulation. Proposed alternative language was provided to the RAP for consideration. The background and overview of the options presented was provided by Carol and Ray. Both options would require SGCN definition added to Section 1 and SGCN analysis language added to Section 3. DGIF favors also including in Section 4 SGCN as well as T&E as a trigger for significant adverse impact determination (Alternative A). The other option provides T&E alone as the trigger, with SGCN to be part of additional voluntarily-proposed actions for mitigation (Alternative B). The RAP discussed the alternatives presented.

Questions:

Q: What does DGIF do with the lists?

A: SGCN is part of a federal mandate that each state develop list of vulnerable species within its respective territory, etc.; based on scientific data and input from scientific experts. The SGCN are part of Virginia's Wildlife Plan which is used as keystone to the funding allocation for DGIF.

Q: What is the frequency of reviewing and expanding the SGCN list?

A: The VWP is reviewed every 5 or 10 years. There are major and minor changes as well. Minor is moving a species from one tier to another. Major is adding a species to the SGCN.

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Q: Can we "lock" the list when project starts?

A: Not for T&E but likely could do so for SGCN.

TNC had done some review of the additional species an applicant would have to address as a result of adding SGCN and noted for Tier 1 that was only about 6 species in areas with Class 3 winds and above. The RAP asked for information regarding where Tier 1 and SGCN intersect. There was concern that regulatory status for SGCN is beyond what is required by current law. The RAP was asked to individually voice their preference for either Alternative A (SGCN Tiers 1 and 2 regulatory status for mitigation) or Alternative B (SGCN Tiers 1 and 2 advisory status for mitigation).

Alternative A - Mandatory Mitigation Plan & Regulatory Status for Tier 1 & 2 SGCN (DGIF's preference):

This alternative was noted as the favored choice by DGIF, DOF, VMRC, DCR, Deputy SNR, PEC, TNC, & Audubon. All except Audubon, however, favored restricting Tiers 1 & 2 to vertebrates only because invertebrate analysis and studies are very expensive, and the species are hard to identify and analyze. Apparently there are only two experts available to do such analysis/study.

Alternative B - Voluntary Mitigation Plan and Advisory Status for Tier 1 & 2 SGCN:

This alternative was favored by Dominion, APCO, and DMME over Alternative A. Comments including concerns that both alternatives are an additional burden and there could be a bad precedent of elevating SGCN to regulatory status under Alternative A.

Alternative C - Total Exclusion of SGCN References from PBR:

Some RAP members noted that they were concerned with both options presented and that their preference was to remove all references to SGCN from the regulation. The comments included that no other state where they operate requires attention to SGCN in this way. This alternative was favored by both independent development representatives. This led to additional discussions, during which the utility developers also expressed concern regarding the expense and burden of analyzing for SGCN (in Section 3).

All RAP members agreed that DEQ should look at quantitative (# of species added to analyses and the potential mitigation) and financial burdens that would accrue from adding SGCN. RAP leader asked industry to calculate this burden with verification by DGIF/DCR. This was requested to be submitted to the RAP leader by COB on 1/14/10.

The RAP members from local government, DHR, VDACS and DEQ spoke about the SGCN alternatives but chose not to cast an official vote on the alternatives.

CONCLUSION: No consensus on SGCN inclusion.

Agenda Item: Discussion on Mitigation Cap (Section 5)

Discussion Leader: Carol Wampler, DEQ

Discussion: The RAP affirmed its conceptual support for the equivalent of a \$5000/turbine/year financial cap on the combined cost of mitigation and post-construction monitoring (after year one of operations). The RAP reviewed three options for how to express this concept in the proposed regulation. The options provided were stating the cap as a dollar amount, as a number of hours of curtailment, and as a formula or protocol by which this figure would be calculated. All options were designed to reach the same cost cap. The question was how to present the cap so that the public would understand the concept – that is, that the

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hours of curtailment equivalent to \$5000/turbine/year is the balance point where the RAP believes a developer will have done as much mitigation as should reasonably be required. These three options were discussed. TNC noted that there was no performance standard because the RAP did not support such a standard, but TNC felt this was an omission.

CONCLUSION: The RAP agreed that DEQ should use the wording it deems best to communicate the financial cap..

Agenda Item: Discussion of Potential Scenic River Candidates (Section 3.C)

Discussion Leader: Carol Wampler, DEQ

Discussion: A question was raised on the potential scenic river candidates that Section 3.C.2 includes in its analysis requirements. These are from the Virginia Outdoors Plan. It was asked what are “potential candidates”? Could these be ones that are not yet evaluated and may not make the list? DCR explained that these are evaluated and actually appear on the list as potential and awaiting inclusion. Therefore, these potential candidates are to be part of the analysis for other natural resources. No change to this section was necessary.

This concluded the agenda items for today. Carol thanked the RAP members for all of their hard work. This meeting concluded the RAP process for this regulatory action, and the meeting was adjourned.

Adjournment 4:13pm

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Wind Energy Regulatory Advisory Panel
Consolidated Discussion Draft 12/31/09; revised 1/6/10
For Discussion by Wind RAP on 1/7/10
Modified during 1/7/10 Wind RAP Meeting
***** **WORKING DRAFT** *****

Outline:

- Section 1. Authority, applicability and definitions.
- Section 2. Application for permit by rule for wind energy facilities.
- Section 3. Analysis of the beneficial and adverse impacts of the proposed project on natural resources.
- Section 4. Determination of whether significant adverse impacts to wildlife or historic resources are likely.
- Section 5. Mitigation plan.
- Section 6. Site plan and context map requirements.
- Section 7. Facility design standards.
- Section 8. Public participation.
- Section 9. Change of ownership, facility modifications, termination.
- Section 10. Permit fee requirements.
- Section 11. Enforcement.

Section 1. Authority, applicability and definitions

A. This regulation is issued under authority of Article 5 (§ 10.1-1197.5 et seq.) of Chapter 11.1 of Title 10.1 of the Code of Virginia. The regulation contains the application filing requirements for all wind-powered electric generation facilities [change “facilities” to “projects” throughout reg to be consistent with statute?] consisting of wind turbines and associated facilities with a single interconnection to the electrical grid that are designed for, or capable of, operation at a rated capacity equal to or less than 100 megawatts.

B. As used in this chapter:

“Applicant” means the owner or operator who submits an application to the Department for a permit by rule pursuant to this Chapter

“Department” means the Department of Environmental Quality, its director, or his designee

“DACS” means the Department of Agriculture and Consumer Services

“DCR” means the Department of Conservation and Recreation

“DGIF” means the Department of Game and Inland Fisheries

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“Disturbance Zone” means the area within the site directly impacted by construction and operation of the wind energy facility, and 100 feet surrounding the directly-impacted area at, below, or in the air space above ground level.

“Ecological Core” means an area of unfragmented marsh, dune, or beach of ecological importance that is at least 100 acres in size and identified in DCR’s natural landscape assessment website [www.dcr.virginia.gov/natural_heritage/vclnavnla.shtml] – probably move website ref to guidance].

“GDPIPD Index” means the Gross Domestic Product Implicit Price Deflator Index, which shall be based on the index in June of each calendar year. *[may be deleted if \$5000 cap is not used in this reg]*

~~“Interconnection Point” means the point or points where facilities and equipment owned and operated by the Wind Energy Facility’s owner physically connect to electrical facilities and equipment owned and operated by the local electric utility. (definition from Dominion, based on FERC approved PJM Open Access Transmission Tariff document)~~

"Interconnection Point" means the point or points where the wind energy facility connects to a project substation for transmission to the grid.

“Invasive Plant Species” means non-native plant species that cause, or are likely to cause, economic or ecological harm or harm to human health [(Presidential Executive Order 13112) -- probably move this ref to guidance], and contained on the Department of Conservation and Recreation’s invasive plant species list [http://www.dcr.virginia.gov/natural_heritage/documents/invlist.pdf] – probably move this website ref to guidance].

“Historic resource” means any prehistoric or historic district, site, building, structure, object, or cultural landscape which is listed in or eligible for listing in the Virginia Landmarks Register (VLR).

1/7 RAP – delete Land-Based

“Natural Heritage Resource” means [as defined by the *Code of Virginia* §10.1-209, -- probably move to guidance] the habitat of rare, threatened, or endangered plant and animal species, rare or state significant natural communities or geologic sites, and similar features of scientific interest benefiting the welfare of the citizens of the Commonwealth.

"Operator" means the person responsible for the overall operation and site management of a wind energy facility.

"Owner" means the person who owns all or a portion of a small renewable energy project facility or all or a part of a wind energy facility.

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"Permit by rule" means provisions of the regulations stating that a wind energy facility or activity is deemed to have a permit if it meets the requirements of the provision.

~~["Phase of a project" means] {being worked on by Dominion; goal is to prevent developer from operating turbines without implementing mitigation plan.} Possibility: "Phase of a project" means one continuous facility construction period. A phase is deemed complete when construction has ceased for three months.~~

"Phase of a project" means one continuous period of construction, startup, and testing activity of the wind energy facility. A phase is deemed complete 90 calendar days after the last wind turbine has been placed in service, except when a delay has been caused by a significant force majeure event, in which case a phase is deemed complete 180 calendar days after the last wind turbine has been placed in service.

"Pre-Construction" means any time prior to commencing land-clearing operations necessary for the installation of energy-generating structures at the small wind energy facility.

"Post-Construction" means any time after commencing operation **of the last turbine** on the wind energy project or phase of that project. ["phase" to be defined; see above]

"Rated capacity" means the maximum capacity of a wind energy facility based on the sum total of each turbine's nameplate capacity.

~~"Site" means the area a wind energy facility that is under common ownership or operating control. Electrical infrastructure and other appurtenant structures up to the interconnection point shall be considered to be within the site.~~

"Site" means the area containing a wind energy facility that is under common ownership or operating control. Electrical infrastructure and other appurtenant structures up to the interconnection point shall be considered to be within the site.

"Small renewable energy project" means (i) an electrical generation facility with a rated capacity not exceeding 100 megawatts that generates electricity only from sunlight, wind, falling water, wave motion, tides, or geothermal power, or (ii) an electrical generation facility with a rated capacity not exceeding 20 megawatts that generates electricity only from biomass, energy from waste, or municipal solid waste.

"Small wind energy facility {or project?}" means a wind energy facility that is designed for, or capable of, operation at a rated capacity equal to or greater than 500 kilowatts and equal to or less than 100 megawatts.

[alternative II: 5 megawatts instead of 500 kw]

[alternative III: 5 megawatts . . . ; provided, however, that a Phase I environmental audit of the disturbance zone of projects equal to or less than 5 megawatts shows no significant

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problem. Note: If alternative III is adopted, then DEQ staff may need to define “Phase I audit” and work on wording of “shows no significant problem.”]

~~“T&E” means threatened and endangered wildlife~~ [insert appropriate statutory definition]

“State Threatened or Endangered Species” or “State-listed Species” means any wildlife species designated as a Virginia Endangered or Threatened species by DGIF pursuant to the Code of Virginia (§29.1-563-570) and the Virginia Administrative Code (§4VAC15-20-130).

“Wildlife” means all wild animals.

~~Alternative Language:~~

~~[“Wildlife” means all species of wild animals, of wild birds, and of fish, marine organisms, and shellfish in the public waters of this Commonwealth.]~~

~~{Combination of DGIF statute § 29.1-100 and VMRC statute § 28.2-100}~~

~~“Wind energy facility” means a renewable energy project that generates electricity only from wind, whose main purpose is to supply electricity, consisting of one or more wind turbines and other accessory structures and buildings, including substations, post-construction meteorological towers, electrical infrastructure, and other appurtenant structures and facilities within the boundaries of the site. Two or more wind energy facilities, otherwise spatially separated but under common ownership or operational control that are connected to the electrical grid under a single interconnection agreement shall be considered a single wind energy facility.~~

“Wind energy facility” means a renewable energy project that generates electricity from wind, whose main purpose is to supply electricity, consisting of one or more wind turbines and other accessory structures and buildings, including substations, post-construction meteorological towers, electrical infrastructure, and other appurtenant structures and facilities. Two or more wind energy facilities, otherwise spatially separated but under common ownership or operational control that are connected to the electrical grid under a single interconnection agreement shall be considered a single wind energy facility. Nothing in this definition shall require the approval of a permit by rule for the construction of meteorological towers to determine the appropriateness of a site for the development of a wind energy facility.

Section 2. Application for permit by rule for land-based wind energy facilities.

A. The owner or operator of a wind energy facility shall be deemed to have a small wind energy facility (project?) permit by rule if he satisfactorily accomplishes all of the following:

1. In accordance with § 10.1-1197 6 B 1 of the Code of Virginia, furnishes to the Department a notice of intent, to be published in the Virginia Register, that he intends to

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submit the necessary documentation for a permit by rule for a small renewable energy project;

2. In accordance with § 10.1-1197 6 B 2 of the Code of Virginia, furnishes to the Department a certification by the governing body of the locality or localities wherein the small renewable energy project will be located that the project complies with all applicable land use ordinances;

3. In accordance with § 10.1-1197 6 B 3 of the Code of Virginia, furnishes to the Department copies of all interconnection studies undertaken by the regional transmission organization or transmission owner, or both, on behalf of the small renewable energy project;

4. In accordance with § 10.1-1197 6 B 4 of the Code of Virginia, furnishes to the Department a copy of the final interconnection agreement between the small renewable energy project and the regional transmission organization or transmission owner indicating that the connection of the small renewable energy project will not cause a reliability problem for the system. If the final agreement is not available, the most recent interconnection study shall be sufficient for the purposes of this section. When a final interconnection agreement is complete, it shall be provided to the Department. The Department shall forward a copy of the agreement or study to the State Corporation Commission;

5. In accordance with § 10.1-1197 6 B 5 of the Code of Virginia, furnishes to the Department a certification signed by a professional engineer licensed in Virginia that the maximum generation capacity of the small wind energy facility, as designed, does not exceed 100 megawatts;

6. In accordance with § 10.1-1197 6 B 6 of the Code of Virginia, furnishes to the Department an analysis of potential environmental impacts of the small renewable energy project's operations on attainment of national ambient air quality standards;

7. In accordance with § 10.1-1197 6 B 7 of the Code of Virginia, furnishes to the Department, where relevant, an analysis of the beneficial and adverse impacts of the proposed project on natural resources. The owner or operator shall perform the analyses prescribed in Section 3 of this Chapter. For wildlife, that analysis shall be based on information on the presence, activity, and migratory behavior of wildlife to be collected at the site for a period of time dictated by the site conditions and biology of the wildlife being studied, not exceeding 12 months;

8. In accordance with § 10.1-1197 6 B 8 of the Code of Virginia, furnishes to the Department a mitigation plan pursuant to Section 5 of this Chapter that details reasonable actions to be taken by the owner or operator to avoid, minimize, or otherwise mitigate such impacts, and to measure the efficacy of those actions; provided, however, that the provisions of Section 2 A 8 shall only be required if the Department determines, pursuant

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to Section 4 of this Chapter, that the information collected pursuant to § 10.1-1197.6 B 7 of the Code of Virginia and Section 3 of this Chapter indicates that significant adverse impacts to wildlife or historic resources are likely. The mitigation plan shall be an addendum to the operating plan of the wind energy facility, and the owner or operator shall implement the mitigation plan as deemed complete and adequate by the Department. The mitigation plan shall be considered an enforceable part of the permit by rule;

9. In accordance with § 10.1-1197.6 B 9 of the Code of Virginia, furnishes to the Department a certification signed by a professional engineer licensed in Virginia that the project is designed in accordance with Section 7 of this Chapter.

10. In accordance with § 10.1-1197.6 B 10 of the Code of Virginia, furnishes to the Department an operating plan that includes a description of how the facility will be operated in compliance with its mitigation plan, if such a mitigation plan is required pursuant to Section 4 of this Chapter.

11. In accordance with § 10.1-1197.6 B 11 of the Code of Virginia, furnishes to the Department a detailed site plan meeting the requirements of section 6 of this Chapter;

12. In accordance with § 10.1-1197.6 B 12 of the Code of Virginia, furnishes to the Department a certification signed by the applicant that the small wind energy facility has applied for or obtained all necessary environmental permits; and

13. Prior to authorization of the project and in accordance with § 10.1-1197.6 B 13 and § 10.1-1197.6 B 14 of the Code of Virginia, conducts a 30-day public review and comment period and holds a public meeting pursuant to Section 89 of this Chapter. The public meeting shall be held in the locality or, if the project is located in more than one locality, in a place proximate to the location of the proposed project. Following the public meeting and public comment period, the applicant shall prepare a report summarizing the issues raised by the public in either or both forums and include any written comments received and the applicant's response to those comments. The report shall be provided to the Department as part of this application.

B. Within 60, 45? 30-days of receiving all of the required documents listed in subsection A, the Department shall inform the applicant whether his application is complete. Suggestion: delete subparagraphs 1 & 2 from reg and explain in guidance.

C. Within 90 days of the date on which the Department notifies the applicant that his application is complete, the Department shall determine, after consultation with other agencies in the Secretariat of Natural Resources, whether the application adequately meets the requirements of this Chapter, pursuant to Section 10.1-1197.7 A of the Code of Virginia.

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1. If the Department determines that the application fulfills the requirements of this Chapter, then the Department shall notify the applicant in writing that he is deemed to have a permit by rule.

2. If the Department determines that the application does not meet the requirements of this Chapter, then the Department shall notify the applicant in writing and specify the deficiencies.

3. If the applicant chooses to correct deficiencies in a previously-submitted application, the Department shall follow the procedures of subsection C and notify the applicant whether the revised application meets the requirements of this Chapter within 60 days of receiving the revised application.

Section 3. Analysis of the beneficial and adverse impacts of the proposed project on natural resources.

A. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall conduct pre-construction wildlife analyses. The analyses shall include the following:

1. Desktop Surveys and Maps. The applicant shall obtain a wildlife report and map generated from the Virginia Fish and Wildlife Information Service or Wildlife Environmental Review Map Service of wildlife species and habitats known to occur on the site or within two (2) miles of the boundary of the site, known bat hibernacula on the site or within five (5) miles of the boundary of the site, and maternity/bachelor colonies on the site or within twelve (12) miles of the boundary of the site.

2. Breeding Bird Surveys. ~~If a State-listed T&E bird species is likely to occur~~ If the desktop surveys prescribed in Section 3 A 1 indicate the presence of or habitat for state threatened or endangered bird species within the disturbance zone, ~~during the species' breeding season~~, the applicant shall conduct a breeding-bird survey during the annual breeding season to identify state threatened or endangered bird species occurring within the disturbance zone. ~~during their annual breeding season.~~

SGCN Language:

Breeding Bird Surveys: If the desktop surveys prescribed in section 3 A 1 indicate the presence of or habitat for state threatened or endangered bird species or a Tier 1 or Tier 2 bird Species of Greatest Conservation Need within the disturbance zone, the applicant shall conduct a breeding-bird survey during the annual breeding season to identify such bird species occurring within the disturbance zone.

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3. ~~Raptor Migration Surveys. The applicant shall conduct one year of raptor migration surveys within the site in both the spring and fall seasons, to determine the relative abundance of migrant raptors moving within the site.~~

ALT LANGUAGE FROM Dominion, BP, DGIF and TNC:

"Raptor Migration Surveys: The applicant shall conduct one year of raptor migration surveys in both the spring and fall seasons, to determine the relative abundance of migrant raptors moving through the general vicinity of the disturbance zone."

4. Avian Migration Corridors. In the coastal zone, the applicant shall map avian use on the site, if any.

{ Check with CZM program staff and VMRC staff regarding correct terminology and appropriate mapping tools. Ensure consistency with VMRC off-shore requirements. Ask for review also by Watts, Hagerman, DGIF E Shore, and/or similar experts. }

5. Bat Acoustic Surveys. The applicant shall conduct bat acoustic surveys to determine the presence of and level of bat activity and use within the disturbance zone.

6. Mist-Netting or Harp-Trapping Surveys. If the applicant identifies potential for State listed T&E bat species within the disturbance zone, the applicant shall conduct a season-appropriate mist-netting survey or harp-trapping survey or both.

7. ~~Wildlife and Natural Resources~~ Report. The applicant shall provide to the Department a report summarizing the relevant findings of the desktop and field surveys conducted pursuant to subsection A 1 through A 6 of this Section.

B. To fulfill the requirements of § 10.1-1197.6 B.7 of the Code of Virginia, the applicant shall also conduct a pre-construction historic resources analysis. The analysis shall be conducted by a qualified professional meeting the Secretary of the Interior's *Professional Qualifications Standards* [(36 CFR Part 61) – may move CFR cite to guidance; get year from DHR] in the appropriate discipline and shall include each of the following:

1. Compilation of Known Historic Resources. The applicant shall gather information on known historic resources within the disturbance zone and within five (5) miles of the disturbance zone and present this information on the context map referenced in Section 6 B, or on an overlay to this context map, and in tabular format.

2. Architectural Survey. The applicant shall conduct a field survey of all architectural resources, including cultural landscapes, 50 years of age or older within the disturbance zone and within 1.5 miles of the disturbance zone and evaluate the eligibility of any identified resource for listing in the Virginia Landmark Registry (VLR).

3. Archaeological Survey. The applicant shall conduct an archaeological field survey of the disturbance zone and evaluate the eligibility of any identified archaeological site for listing in the VLR.

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4. Anticipated Impacts to Historic Resources Report. The applicant shall assess and describe the expected impacts, if any, of the proposed project on historic resources identified in Sections 3 B 1, 3 B 2, and 3 B 3.

5. Historic Resources Report. The applicant shall provide to the Department a report presenting the findings of the studies and analyses conducted pursuant to subdivisions 1 through 4 of this subsection.

C. To fulfill the requirements of § 10.1-1197.6 B 7 of the Code of Virginia, the applicant shall also conduct pre-construction analyses of the impact of the proposed project on other natural resources. The analyses shall include:

1. Natural Heritage Resources. An analysis of the impact of the project on Natural Heritage Resources, which shall include the following:

a. A desktop survey of Natural Heritage Resources on or within two (2) miles of the site boundary. (2-mile radius of site?)

b. Field surveys within the disturbance zone mapping the Ecological Community Groups (DCR's "The Natural Communities of Virginia, Classification of Ecological Community Groups) and Natural Heritage Resources to include species/community identification, location, age, size, spatial distribution, evidence of reproduction; caves; mines; rock outcrops; cliffs; wetlands; and Invasive Plant Species.

2. Scenic Resources. An analysis of the impact of the project on Scenic Resources, as follows:

a. Pursuant to Section 6, for the area encompassed by the site and within 5-miles of the site boundary, ~~radial survey around the site pursuant to Section 6~~, a viewshed analysis of the impact of the proposed project on existing federally-designated or state-designated scenic resources, including National Parks, National Forest Designated Scenic Areas, State Parks, State Natural Area Preserves, National Scenic Trails, National or State designated scenic roads, National or State designated Scenic Rivers and those resources identified as potential candidates for such designation in the Virginia Outdoors Plan (provide year).

b. The applicant shall conduct these analyses and shall show the potential impact of the proposed project on the viewshed from such identified resources, where applicable.

3. Other Natural Resources Report. The Applicant shall provide to the Department a report, including maps, documenting the results of the analyses conducted pursuant to Sections 3 C 1 and 3 C 2.

Section 4. Determination of whether significant adverse impacts to wildlife or historic resources are likely.

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A. The Department shall find that significant adverse impacts to wildlife are likely whenever the wildlife analyses prescribed in Section 3 A document either of the following:

1. State threatened or endangered wildlife are found to occur within the disturbance zone.
2. Bats have been observed, or a hibernaculum exists, within the disturbance zone.

B. The Department shall find that significant adverse impacts to historic resources are likely whenever the historic resources analyses prescribed by Section 3 B indicate that the proposed project is likely to diminish significantly any aspect of a historic resource's integrity.

Section 5. Mitigation Plan.

A. If the Department determines that significant adverse impacts to wildlife or historic resources or both are likely, then the applicant shall prepare a mitigation plan. The mitigation plan shall include a description of the affected natural resources and the impact to be mitigated, a description of actions that will be taken to avoid the stated impact, and a plan for implementation. If the impact cannot reasonably be avoided, the plan shall include a description of actions that will be taken to minimize the stated impact, and a plan for implementation. If neither avoidance nor minimization is reasonably practicable, the plan shall include a description of other measures that may be taken to offset the stated impact, and a plan for implementation.

B. Mitigation measures for significant adverse impacts to wildlife shall include:

1. For State listed T&E wildlife, the applicant shall take all reasonable measures to avoid significant adverse impacts, or shall demonstrate in the mitigation plan what significant adverse impacts cannot practicably be avoided, and why the additional proposed actions are reasonable.
2. For bats, the mitigation plan shall include measures to curtail operation of wind turbines on low wind speed nights when bats are likely to be active within the disturbance zone, and to monitor the efficacy of these measures; however, the combined cost of mitigation and post-construction monitoring, after year one (1), shall not exceed \$5,000 per turbine per year.

Alternative language:

[For bats, the mitigation plan shall include measures to curtail operation of wind turbines on low wind speed nights when bats are likely to be active within the disturbance zone, and to monitor the efficacy of these measures; however, the combined annual cost of mitigation and post-construction monitoring, after year one (1), shall not exceed the project's annual lost revenue that would accrue as a result of 119 hours of curtailment per turbine .

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[Dominion's revised procedure for cap: . . . however, the combined annual cost of mitigation and post-construction monitoring, after year one (1), shall not exceed the product of the following five items: 1) 119 hours (estimated average curtailment hours per turbine), 2) \$70/MWh (estimated average project revenue rate), 3) 2 MW (average nameplate capacity per turbine), 4) 30% (annual net capacity factor), and 5) total number of turbines operating in the phase of a project. This product of this calculation will be annually adjusted beginning on January 1, 2012, using the GDPIPD Index.

3. Post-construction monitoring shall be designed to achieve the following:

a. Estimate the level of avian and bat mortality associated with the wind energy project, accounting for scavenger removal and searcher efficiency.

b. Investigate the correlation of bat fatalities with project operational protocols, weather-related variables, and the effectiveness of operational adjustments to reduce impacts.

4. Post-Construction Wildlife Mitigation and Management shall include the following:

a. Post-Construction Mitigation: After completing the initial one (1) year of Post-Construction monitoring, the applicant shall submit a plan consisting of his proposed monitoring and mitigation actions expected to be implemented for the remainder of the project's operating life.

b. Amendment of Mitigation Plan: After three (3) years of post-construction mitigation efforts, the Operator of the facility may initiate a consultation with the Department to propose amendments to the mitigation plan. The Department may approve a proposed amendment to the mitigation plan if the Department determines that the proposed amendment will avoid or minimize adverse impacts to a demonstrably equal or greater extent as the mitigation measures being implemented at that time. Alternatively, the Department may approve a proposed amendment to the mitigation plan if the Operator demonstrates that the mitigation measures being implemented at that time are not effectively avoiding or minimizing adverse impacts, and the operator's proposed amendments (for example, funding research or habitat preservation) are preferable methods to mitigate for ongoing adverse impacts.

C. Mitigation measures for significant adverse impacts to historic resources shall include:

1. Significant adverse impacts to VLR-eligible or VLR-listed architectural resources shall be minimized, to the extent practicable, through redesign of wind energy facility or the installation of vegetative or other screening.

2.. If significant adverse impacts to VLR-eligible or VLR-listed architectural resources cannot be avoided or minimized-so that impacts are no longer significantly adverse, then

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the applicant shall develop a reasonable and proportionate mitigation plan that offsets the significantly adverse impacts and has a demonstrable public benefit and benefit for the affected or similar resource.

Section 6. Site plan and context map requirements.

A. The applicant shall submit a site plan that includes maps showing the physical features and land cover of the area within the site, both before and after construction of the proposed project. The site plan shall be submitted at a scale sufficient to show, and shall include, the following: 1) the boundaries of the site; 2) the location, height, and dimensions of all existing and proposed wind turbines, other structures, fencing and other infrastructure; 3) the location, grades, and dimensions of all temporary and permanent on-site and access roads from the nearest county or state maintained road; 4) existing topography; and 5) water bodies, waterways, wetlands, and drainage channels.

B. The applicant shall submit a context map including the area encompassed by the site and within 5 miles of the site boundary. ~~radius around the site.~~ The context map shall show state and federal resource lands and other protected areas, historic resources, state roads, waterways, locality boundaries, forests, open spaces, and transmission and substation infrastructure.

Section 7. Facility design standards.

~~The installation and design of the wind energy facility shall conform to applicable industry standards, including those of the American National Standards Institute, and take into consideration local conditions. All structural, electrical and mechanical components of the wind energy facility shall conform to relevant and applicable local, state and national codes.~~

Alternative:

The design and installation of the wind energy facility shall incorporate any requirements of the mitigation plan that pertain to design and installation, if a mitigation plan is required pursuant to Section 4 of this chapter.

Section 8. Public participation.

A. Before the initiation of any construction at the facility, the owner or operator shall publish a notice once a week for two consecutive weeks in a major local newspaper of general circulation informing the public that he intends to construct and operate a facility eligible for a permit by rule. No later than the date of newspaper publication of the initial notice, a copy of the notice shall be submitted to the Department. The notice shall include:

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1. A brief description of the proposed facility and its location, including the approximate dimensions of the site, approximate number of turbines, and approximate maximum blade-tip height;

2. A statement that the purpose of the public participation is to acquaint the public with the technical aspects of the proposed facility and how the standards and the requirements of this chapter will be met, to identify issues of concern, to facilitate communication and to establish a dialogue between the owner/operator and persons who may be affected by the facility;

3. Announcement of a 30-day comment period, in accordance with subsection D of this section, and the name, telephone number, and address of the owner's or operator's representative who can be contacted by the interested persons to answer questions or to whom comments shall be sent;

4. Announcement of the date, time, and place for a public meeting held in accordance with subsection C of this section; and

5. Location where copies of the documentation to be submitted to the Department in support of the permit by rule notification and any supporting documents can be viewed and copied.

B. The owner or operator shall place a copy of the documentation and support documents in a location accessible to the public in the vicinity of the proposed facility.

C. The owner or operator shall hold a public meeting not earlier than 15 days after the publication of the notice required in subsection A of this section and no later than seven days before the close of the 30-day comment period. The meeting shall be held in the locality or, if the project is located in more than one locality, in a place proximate to the location of the proposed project.

D. The public shall be provided 30 days to comment on the technical and the regulatory aspects of the proposal. The comment period shall begin on the date the owner or operator publishes the notice in the local newspaper.

E. For purposes of this Chapter, the applicant and any interested party who submits written comments on the proposal to the owner's or operator's representative during the public comment period, or who signs in and provides oral comments at the public meeting, shall be deemed to have participated in the proceeding for a permit by rule under this chapter and pursuant to Section 10.1-1197.7 B of the Code of Virginia.

Section 9. Change of ownership, facility modifications, termination.

A. Change of Ownership

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1. Except as provided in subdivision 2 of this subsection, a permit by rule may be transferred by the current owner or operator to a new owner or operator only if the permit by rule has been modified to identify the new owner or operator and to incorporate such other requirements as may be necessary under this chapter.

2. Automatic transfers. As an alternative to transfers under subdivision 1 of this subsection, a permit by rule may be automatically transferred to a new owner or operator if:

a. The current owner/operator notifies the Department at least 30 days in advance of the proposed transfer date in subdivision 2 of this subsection;

b. The notice includes a written agreement between the existing and new owners/operators containing a specific date for transfer of permit responsibility, coverage, and liability between them; and

c. The Department does not notify the existing owner/operator and the proposed new owner/operator of the Department's intent to modify the permit pursuant to subdivision 1 of this subsection. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in subdivision 2 of this subsection.

B. Facility Modifications. Provided such modifications are in accordance with the requirements of this permit by rule and do not increase the rated capacity of the wind energy facility, the owner or operator of a facility operating under a permit by rule may modify its design and operation by furnishing to the Department new certificates prepared by a professional engineer and new documentation required under Section 2.

C. Permit By Rule Termination. The Department may terminate the permit by rule of the wind energy facility whenever the Department finds that:

1. The applicant has knowingly or willfully misrepresented or failed to disclose a material fact in any report or certification required under this chapter; or

2. After the Department has taken enforcement actions pursuant to Section 11, the owner or operator persistently operates the facility in significant violation of the facility's mitigation plan.

3. Prior to terminating a permit by rule pursuant to subdivision 1 or 2 of this subsection, the Department shall hold an informal fact-finding proceeding pursuant to § 2.2-4019 of the Virginia Administrative Process Act in order to assess whether to continue with termination of the permit by rule, or to issue any other appropriate order. If the Department determines that it should continue with the termination of the permit by rule, the Department shall hold a hearing pursuant to § 2.2-4020 of the Virginia Administrative Process Act. Notice of the hearing shall be delivered to the owner or operator. Any

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person whose permit by rule is terminated by the Department shall cease operating the facility.

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Section 10. Permit fee requirements.

A. Purpose. The purpose of this section is to establish schedules and procedures pertaining to the payment and collection of fees from any owner or operator of a wind energy facility seeking a new permit by rule or seeking a modification of an existing permit by rule. It also establishes schedules and procedures pertaining to the payment and collection of inspection fees from all owners or operators of a wind energy facility.

B. Payment, deposit and use of fees.

1. Due date. All permit application fees are due on the submittal day of the application package. The inspection fees for the first year or portion of a year are due as part of the permit application. Thereafter, all inspection fees are due March 1 of each year.

2. Method of payment. Fees shall be paid by check, draft or postal money order made payable to "Treasurer of Virginia/DEQ," and shall be sent to the Department of Environmental Quality, Receipts Control, P.O. Box 10150, Richmond, VA 23240.

3. Incomplete payments. All incomplete payments shall be deemed nonpayments.

4. Late payment. No applications will be deemed complete until the Department receives proper payment. In the event that the inspection fee is not received by the Department on or prior to March 1, the owner or operator of the facility shall be considered to be operating an unpermitted facility.

5. Fee schedules. Each application for a permit by rule and each application for a modification of a permit by rule is a separate action and shall be assessed a separate fee. The amount of the permit application fee is based on the costs associated with the permitting program required by this chapter. An inspection fee will be collected annually and its amount is based on the costs associated with the inspections program conducted by the Department. The fee schedules are shown in the following table:

Type of Action	Fee
Initial application	not to exceed \$11,000
Modification	\$????
Inspections	\$????

Section 11. Enforcement.

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667 The Department may enforce the provisions of this chapter and any permits by rule
668 issued under this chapter in accordance with §§ 10.1-1197.9 through 10.1-1197.11 of the
669 Code of Virginia. In so doing, the Department may:

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671 A. Issue directives in accordance with the law;

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673 B. Issue special orders in accordance with the law;

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675 C. Issue emergency special orders in accordance with the law;

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677 D. Seek injunction, mandamus or other appropriate remedy as authorized by the law;

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679 E. Seek civil penalties under the law; or

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681 F. Seek remedies under the law, or under other laws including the common law.

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